AMENDMENTS TO THE SPECIFICATION

Please replace the title with:

"Method and Apparatus for Addressing a Vector of Elements in a Partitioned Memory using Stride, Skip and Span Values".

In the specification on page one, lines 4-8, please amend the priority claim as follows:

PRIORITY CLAIM

This application is a continuation-in-part application that claims priority under 35 U.S.C. 120 to co-pending U.S. patent application serial number 10/184,583 titled "Reconfigurable Streaming Vector Processor", filed June 28, 2002, Art Unit 2183, Examiner Charles A. Harkness, being further identified by Attorney Docket No. CML00107D, pending and allowed, which is herein incorporated by reference.

In the specification on page one, lines 10-13, please amend the cross reference to related applications as follows:

CROSS REFERENCE TO RELATED APPLICATIONS

This application is related to patent application Attorney Docket No. SC13071TH titled "Data Processing System Using Multiple Addressing Modes for SIMD Operations and Method Thereof," U.S. patent application number 10/657,797, pending, filed on the same date as this application, which is assigned to the current assignee hereof.

In the specification on page 5, insert after line 17:

"**FIG. 5** is a representation of a further addressing system consistent with certain embodiments of the invention."

In the specification on page 12, insert after line 12:

"An exemplary embodiment of the address calculator 100 of present invention is shown in **FIG. 5**. Referring to **FIG. 5**, the address calculator 100 comprises a set of storage elements 102. In one embodiment the storage elements 102 include a TYPE register 104, a STRIDE register 106, a SKIP register 108 and SPAN registers 110 and 110'. The registers are accessed by an arithmetic unit 112. The arithmetic unit may, for example, comprise counters 502, 502' and 504 and a state machine and adder 506. The address pointer 116 (EA) is initialized to the start address denoted by EA_START. The first counter 502 indicates the number of data elements remaining in the first partition of a first memory level and is initialized to the value LEFT_START. The first counter 502' indicates the number of data elements remaining in the first partition of a second memory level and is initialized to the value LEFT2_START. The third counter 504 indicates the total number of data elements to be accessed in the memory and is initialized to the value TOTAL. Once initialized, the arithmetic unit 112 is operable to calculate the address of a current data element in memory from the address of the previous element. The current address (EA) is stored in address pointer 116 and may be output at 118 to access the memory. "